

# Multi-disciplinary approaches to the Islamic period in Egypt and the Red Sea Coast

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*We are privileged to offer a summary of the massive campaign of excavation and survey conducted by the author and his team from Japan in northern Egypt and the neighbouring coast of Sinai. Over the last few years they have excavated a large sector of al-Fustat (the early Islamic settlement on the outskirts of modern Cairo), mapped the early Christian monastery at Wadi al-Tur (sixth–twelfth century AD), recorded early Islamic rock inscriptions on Mt Naqus eighth–twentieth century AD), mapped the port and mosque at Raya (originating in the sixth–twelfth or thirteenth century AD) and investigated on a large scale the fourteenth–twentieth-century sequence at al-Kilani (al-Tur). Among the objects unearthed at al-Kilani were 4000 fragments of manuscripts. The work is throwing new light on early Islam, its development of social and commercial networks, and its relation with Christian, Coptic and Byzantine cultures.*

**Keywords:** early Christian, early Islamic, medieval, Egypt, Sinai, al-Fustat, Raya, al-Tur, monastery, mosque, port, trade, conversion, rock inscriptions

## Rationale of the research

This paper offers an introduction to research carried out by Japanese scholars in the area of northern Egypt, the point where the European, Asian and African continents converge (Figure 1). This research, which has been going on for a quarter of a century, has as its objective the understanding of one of the world's great cross-roads. This area has seen the exchange of goods, people and languages between the East and the West and between the North and the South. Contact between the North and the South, that is to say, Mesopotamia and Africa, was very close long before exchanges with Europe began. Contact between the East and the West has gradually expanded, so that in the Roman period the exchange zone spread from Spain to India. With the passage of time, the exchange zone enlarged until in the sixteenth century it included Japan.

The vehicle of our research programme has been an interdisciplinary study of the dynamic society of Islamic Egypt, with the premise that the exchange of goods, people and languages are major factors in the formation and development of culture (Kawatoko 1983a, 1988, 1994b). In brief, the main themes are the history of East–West maritime relations, the transformation of material culture and daily life in Egypt and the Red Sea area, and the form and structure of the Islamic city. To this purpose we have conducted archaeological

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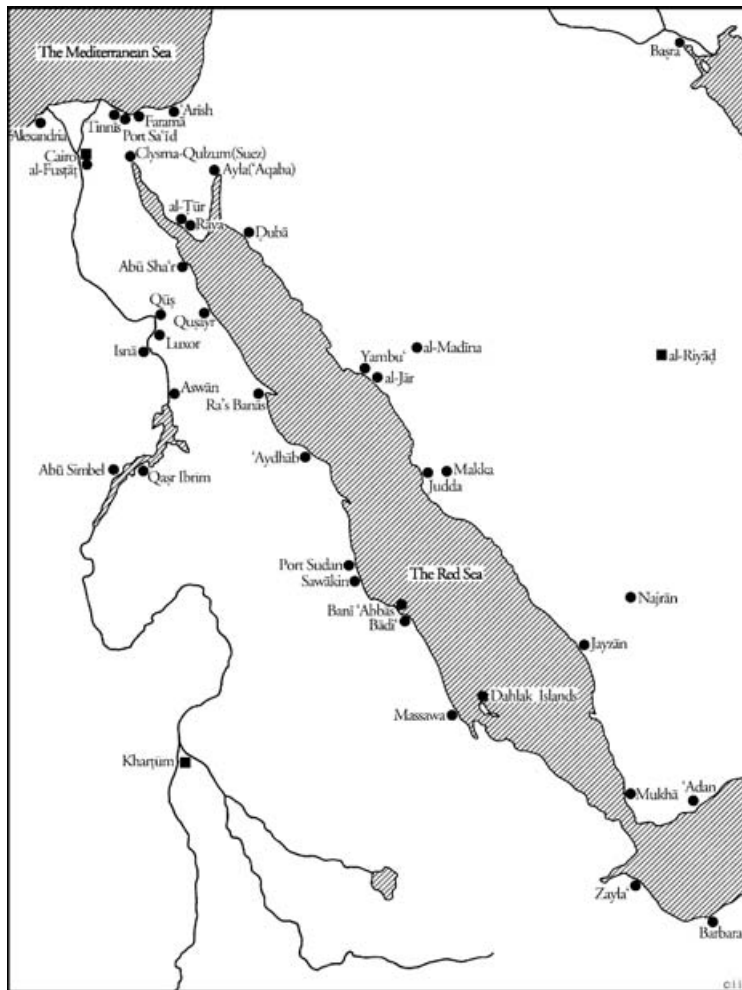


Figure 1. Map of the Northern Red Sea showing the location of areas investigated by the Japanese research team.

excavation and survey in collaboration with specialists in other fields, including human sciences (e.g. philology, cultural anthropology, linguistics and epigraphy) engineering (e.g. architecture and urban engineering) and the natural sciences (e.g. physical anthropology, botany, oceanography and analytic chemistry).

Our work hitherto has focused on two main areas: al-Fustat, an area within the modern metropolis of Cairo, and the Red Sea coast of the Sinai peninsula. Fustat was the greatest city in Egypt between the seventh and ninth centuries, and a great commercial centre between the tenth and fourteenth centuries. Here we have excavated two sites, one about 250m east of 'Amr Mosque (Figure 2) and the other about 15m east of the mosque. The Sinai coast has been the principal maritime connection between the Mediterranean and the Indian Ocean world since ancient times. In 1985 we carried out a survey in the south-west part of south Sinai (Figure 3) and selected some sites for further investigation. Here we conducted excavations at the port city of Raya (sixth–twelfth or thirteenth century) in the south-west

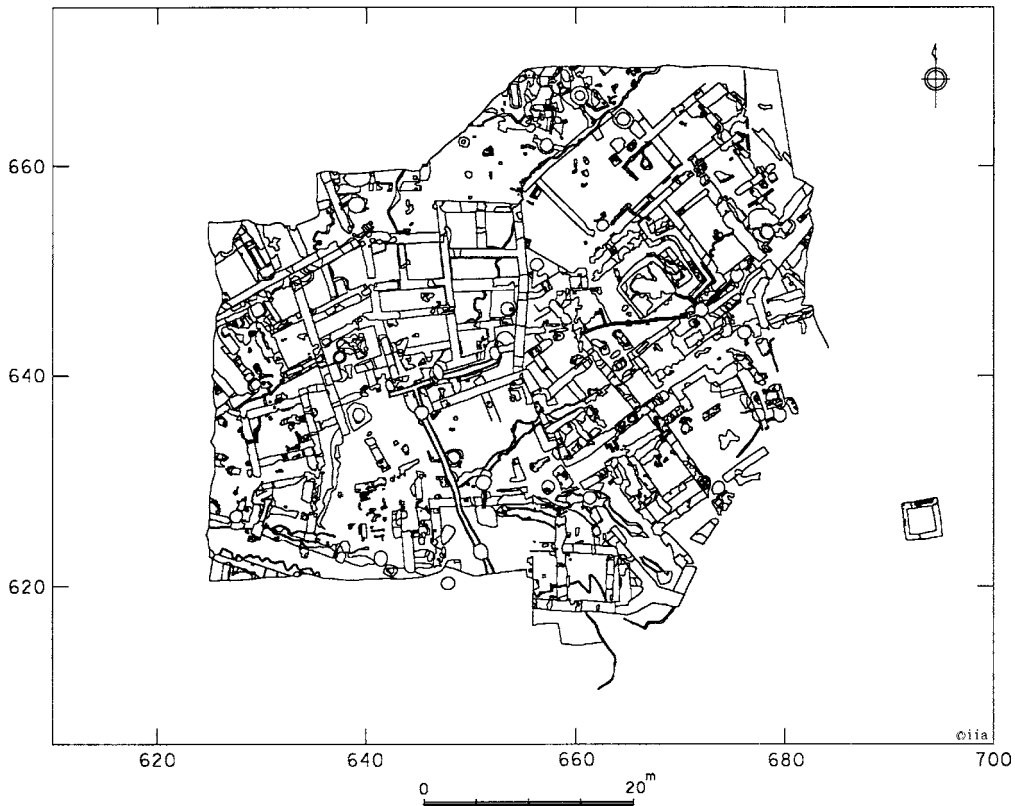


Figure 2. *al-Fustat. Excavations at the Mahra quarter in 1978-1985.*

part of the peninsula, the Monastery of Wadi al-Tur (sixth–twelfth century) and at al-Kilani, al-Tur (thirteenth century to the present). We have also conducted surveys of the Raya/al-Tur area, which is in the hinterland of the Monastery of Mt. Sinai (St. Catherine's Monastery). We have carried out work at other Red Sea sites including 'Aydhab (tenth–fifteenth century; Kawatoko 1993c), close to the border with Sudan, and Badi' (seventh–twelfth century; Kawatoko 1993b), close to the boundary with Eritrea in Sudan. In 2001 we started surveys of the rock inscriptions in Najran and al-Madina of Saudi Arabia, and in the winter of 2003 we began an excavation at the al-Jar port site in Saudi Arabia. Our work also includes anthropological studies of the Bedouin.

Our aim is to make an integrated study of medieval society, considering the role of the city, the monastery and the trade and pilgrimage routes, and the trilateral structure provided by the Orthodox Christians, the Muslims and the Bedouin. This paper offers a brief account of our multi-disciplinary approach and some of its conclusions to date, presented in an approximately chronological order.

### **Excavations at al-Fustat**

Since 1978 the expedition team of Waseda University (later joined with the Idemitsu Museum of Arts and the Middle Eastern Culture Center in Japan) has conducted eight

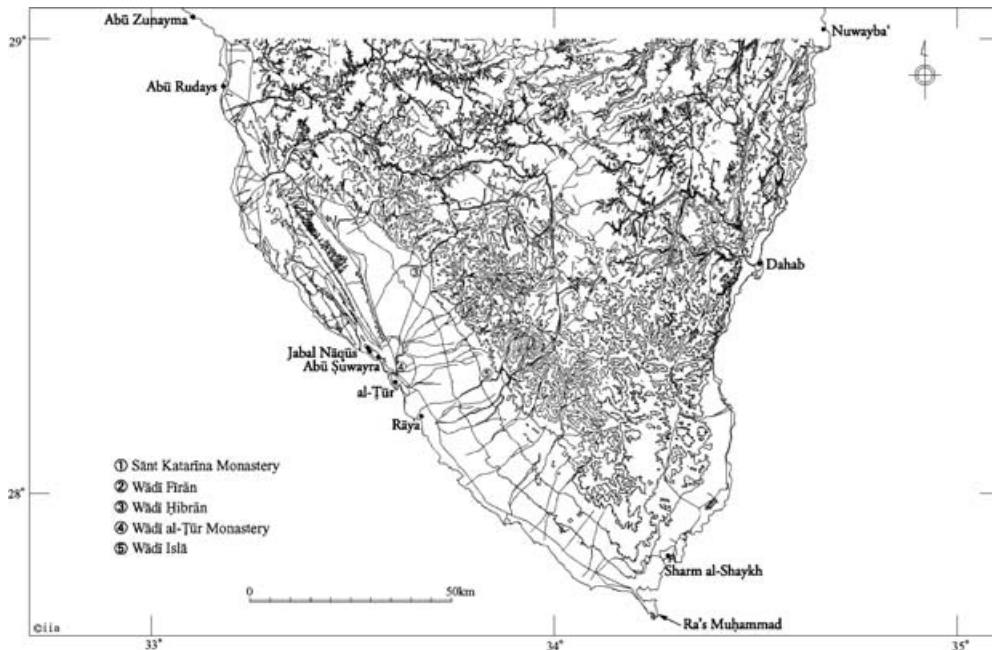


Figure 3. South-west Sinai showing the location of places investigated.

seasons of excavation at al-Fustat (Sakurai & Kawatoko 1979, 1980, 1981, 1982, 1984, 1986, 1987; Kawatoko 1983b, 1987; Sakurai & Kawatoko (ed.) 1992). About 2300m<sup>2</sup> has been examined as of now (see Figure 7). The excavated area is believed to have been the Mahra quarter, adjacent to the Ahl al-Raya quarter, which was the centre of al-Fustat. This quarter is near the centre, so it was occupied for about 700 years, from the time of construction until the abandonment of al-Fustat (in the mid-fourteenth century).

The accumulated deposits at al-Fustat are about 3m thick and can be divided broadly into an upper and a lower deposit. The lower deposit covers the buildings of the town, which were made mainly of fired bricks, with developed networks of drainage ditches. The buildings were repeatedly extended and reconstructed and were finally dismantled when al-Fustat was abandoned, so their stratigraphy is very complicated. Above an intermediate layer, which contained few artefacts, there was an upper deposit, which shows accumulated rubbish deposited by the residents of Cairo after al-Fustat was abandoned. Some of the most significant findings of this excavation were that Islamic construction techniques prevailed over Coptic-Byzantine techniques from the first half of the ninth century; that in the Fatimid period that followed, Muslims and Christians lived together in this quarter; and that civil life improved rapidly in the Mamluk dynasty (1250-1516), when many garbage pits were dug on the edges of streets and beside houses.

In the 1990s the Cairo city authorities accelerated the redevelopment plan of the Old Cairo district. The northern part of the al-Fustat site was reclaimed and a green space park and an amusement park were constructed whilst a group of tenement houses was built in the east. As part of this redevelopment the district of kilns to the east of 'Amr Mosque

was to be destroyed. The Supreme Council of Antiquities (SCA) of Egypt discussed this situation with the Cairo city authorities and decided to make a preliminary survey. When they were drawing up a plan of the project, the al-Fustat Archaeological Office of the SCA asked the Islamic Archaeological Mission of the Middle Eastern Culture Center in Japan for co-operation, and a joint investigation was started.

The new excavation is situated in the Ahl al-Raya quarter in the centre of al-Fustat, and was launched in December 1998. Kiln debris had accumulated thickly under the present surface layer. After digging to a depth of 2–3m, building features characteristic of a period prior to the fourteenth century were eventually found and a part of the water supply facilities (from about the ninth century) accompanying a *saqiya* (water-drawing machine) was unearthed. According to descriptions in historical sources, the water supply in al-Fustat was ordinarily to fill leather bags with water from the Nile and carry them by camels, mules or donkeys to cisterns located in various parts of the city. Each family drew water from one of these. The remains of this water system suggested the existence of waterworks in the main districts of al-Fustat, which was not known from historical sources. Waterworks were also found by the Institut Français d'Archéologie Orientale (IFAO) mission at Istabl Antar, on the eastern edge of al-Fustat (Gayraud 1986, 1987, 1993, 1994, 1995a, 1995b; for other excavations in al-Fustat, see Bahgat & Gabriel 1921; Scanlon 1965, 1966, 1967, 1974a, 1974b, 1976, 1981a, 1981b, 1982).

Around 325m<sup>3</sup> of artefacts have been retrieved and recorded from the excavations and are currently stored by the SCA at the site (Kawatoko 1987, 2001a, 2001c, 2003b; Shindo 2000). In 1995, a concerted programme of publication began, which is expected to result in a catalogue of some 20 volumes, and the first volume is scheduled to appear in 2005. The artefacts have been cleaned, packed (into about 12 000 boxes) and broadly classified by type, such as the water-jug filters (Kawatoko (ed.) 2003b), Chinese ceramics, Turkish ceramics and tiles, glassware and pipes.

## **Investigations in Sinai**

The surveys in Sinai on the coast of the Red Sea have located a number of sites of the greatest importance (Figure 3; see introduction, above). Here I offer brief summaries of four: the early Christian monastery at Wadi al-Tur, rock inscriptions on Mount Naqus, the early Islamic fort at Raya and the later port at al-Kilani (in al-Tur).

### **The Christian monastery of Wadi al-Tur**

Excavations at the monastery of Wadi al-Tur, situated 5km north of al-Kilani and 15km north of Raya, have been conducted by the South Sinai Archaeological Office of the SCAE since 1984 (Figure 4). In 1993 when the excavation inside the monastery was almost over, they requested us to collaborate on a joint project for the excavation of the final stage, the publication of the excavation report, and the preservation of the site (Kawatoko 1995, 1996, 1998a; Kawatoko (ed.) 2003a, 2004).

The monastery is thought to be that of St. John's Monastery of Raithou, whose patron was Justinian in the first half of the sixth century. At the time of construction its dimensions were 60m (east–west) by 55m (north–south) with six rectangular towers (three each on the

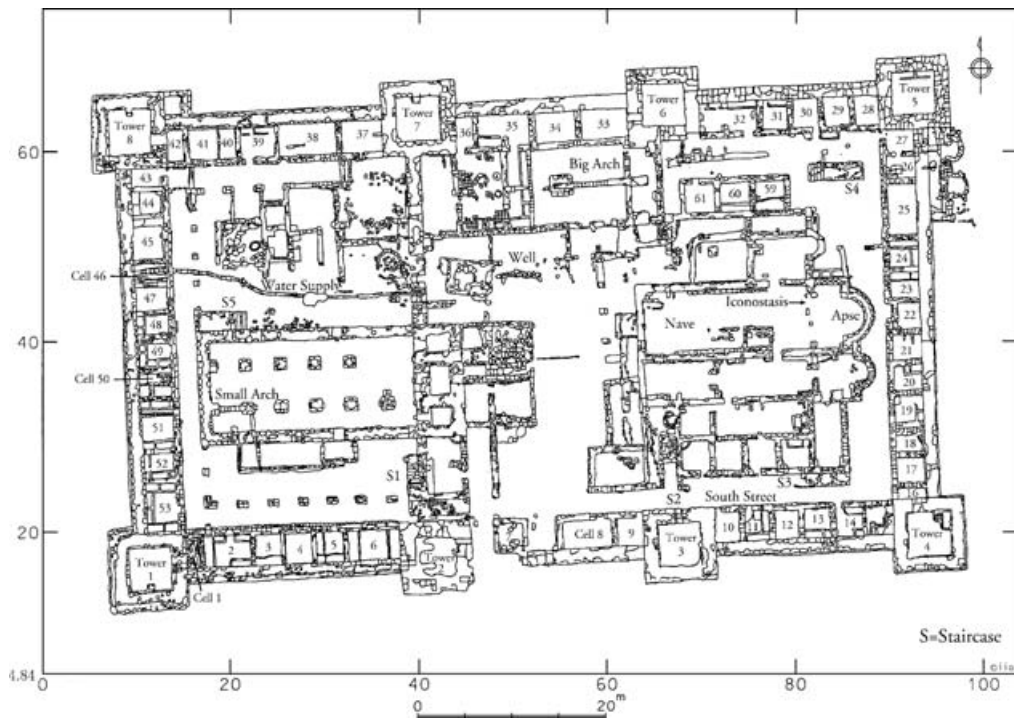


Figure 4. Plan of the Wadi al-Tur monastery.

north and south walls). After the west part was added, the east–west length was extended to about 92m, and two more rectangular towers were constructed. The north part, inside the monastery, was for working space and the rest was for the ascetic life. The main church is located in the east and has three apses. To the west there is a basilica-style building which probably functioned as both a refectory and assembly hall. Many cells were made inside the outer wall. Five stairs indicate that there was a second floor or that the rooftop was frequently used. A well provided good water in the living space, and there was also a facility for drawing water from outside the outer wall for the Bedouins. Other structures uncovered include an olive press, a bread oven, and a bathhouse, using arches to span broad spaces.

This monastery is said to have been used as a fort by the Muslim forces in the days of the Crusades for a time and then fell into ruins. It is not yet known when exactly the monastery was completely deserted and abandoned, but it was later used as a graveyard by Christians. We found more than 100 burials under the nave of the main church in 2000. At present we are carrying out the physical anthropological and archaeological studies of these with the cooperation of the professors of the Faculty of Medicine of Cairo University.

### Rock inscriptions of Mt. Naqus

Raithou was one of the three centres of early Christian monasticism in the Sinai Peninsula, but its location is uncertain. To address the problem we carried out a survey on the groups of



Figure 5. Inscription S-XII-053 at Mt. Naqus, al-Tur, Sinai. It reads as follows: 'May al-Allah forgive Musa bin Masur al-dabbagh, his parents, and all the Muslims and *muslimas* (female Muslims) by your mercy! I believe in the lord of the whole world. And I devote myself to the being who is immortal (al-Lah). He (Musa) wrote in AH 245' [AD 859/860].

cells at Abu Suwayra (Figure 3) in the south part of Mt. Naqus, in August 2000. During the survey we found many rock inscriptions on Mt. Naqus located 15km north–north-west of al-Tur. Among them was an Arabic inscription in the Kufic style dated AH 245 (AD 859/860) (S-XII-053; Figure 5). Recording from February 2001 to January 2005 yielded a total of 1710 rock inscriptions and drawings, including 966 in Arabic and 440 in Greek and Coptic. This is the largest known group of Arabic rock inscriptions in Egypt (Kawatoko (ed.) 2003a, 2004).

In the process of studying inscriptions, many important facts were revealed. A large quantity of inscriptions have dates and *nisbas* indicating the home city, tribe, or occupation. The dated inscriptions centre on the fourth century AH (tenth century AD), while there are some dated in the third century AH (ninth century AD) and second century AH (eighth century AD). The rock inscriptions (made before paper came to be widely used) are mainly composed of brief sentences expressing prayers, the marks of a visit, or Muslim confessions, but they are also a record of the actual movements of people, and are therefore extremely important historical material.

The purpose of these surveys is to accumulate material for empirical studies on a large number of topics: movements of people and changes of routes of travel; the history of tribes; personal and place names; Islamisation and the transition to the use of Arabic; the arguments about Arabic palaeography that need reconsideration; and the date that the Arabic numerals began to be used.



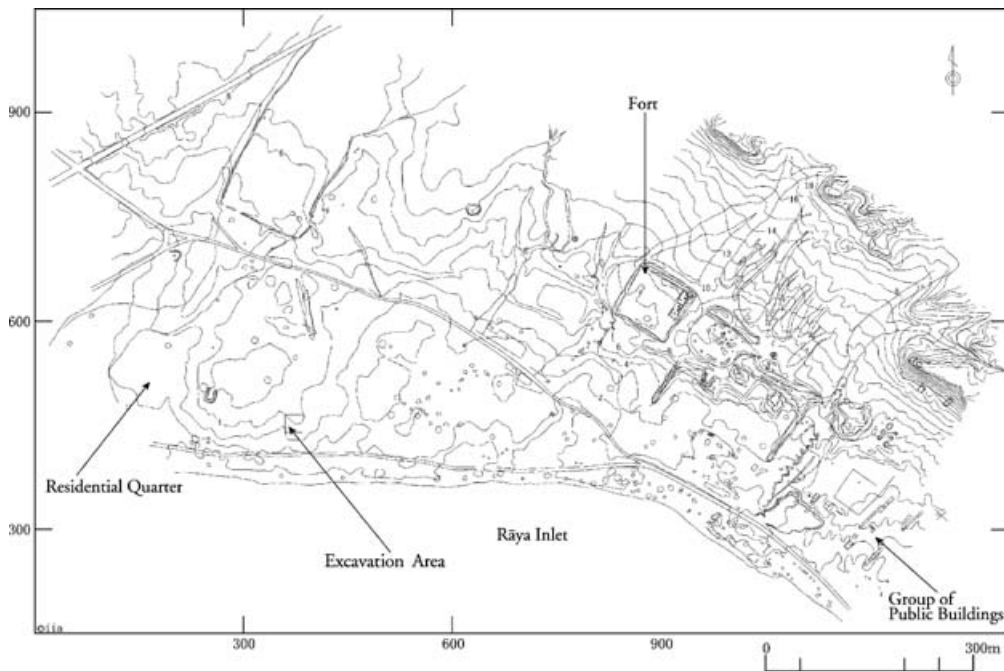


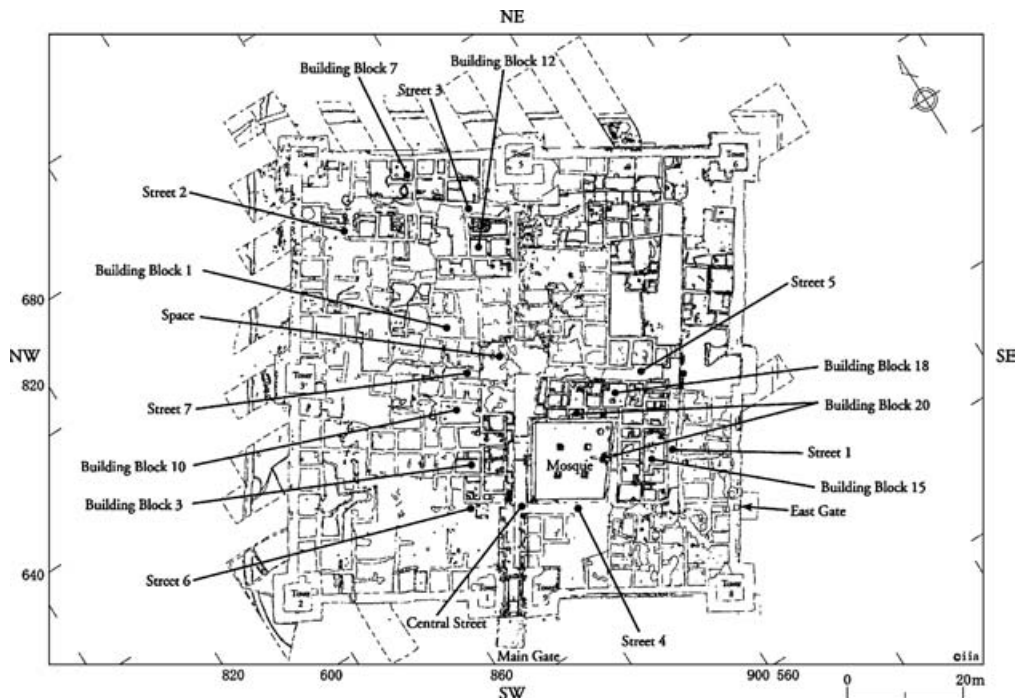
Figure 6. Contour map of the Raya site.

### The fort at Raya

The Raya port lies further south along the coast from al-Tur (Figure 3), and consists of the remains of a fort built on gentle slopes looking down to the sea, together with storehouses and other public buildings and groups of houses. The existence of this site had been mentioned by some scholars (Dahari 2000; Mouton 2000; Mouton (ed.) 2001). In 1996 the archaeological site was faced with destruction as a result of development for tourism, so rescue investigations were mounted, beginning with a contour survey and followed by excavations (Figure 6). This work revealed the outline of a well-preserved fort and numerous early Islamic artefacts (Kawakoto 1998b, 1999, 2001d, 2002, 2003; Kawatoko (ed.) 2003a, 2004; Shindo 2003, 2004, 2005; for chemical analyses of the artefacts, see Nakagawa *et al.* 2003; Sawada *et al.* 2003, 2004, 2005). In this way, the importance of the Raya site was recognised, and the impending destruction avoided. The area was then designated as a district for the preservation of cultural properties (Prime Minister's order, no. 3340, November 2, 1999).

The fort, dating from about the sixth century, has a four-square plan, with each side about 84.5m long (Figure 7). Towers are built on the four corners and at the centre of each side. The main gate stands in the centre of the south-western outer wall, facing the sea. This gate consists of two towers and has double doors (the distance between the doorposts is 1.45m). The fort is aligned at about 45° to the north–south axis. Passing through the first door, which opens vertically, and the second door, which opens horizontally, the central street stretches straight ahead. On the inner face of the outer wall (1.8m thick) units of rooms are strung out in two or three longitudinal rows, forming a main street. In addition,





*Figure 7. Plan of the Raya fort.*

three or four streets crossed the central street at right angles, dividing the fort into five or six quarters. A right turn at the first street from the main gate leads straight to the east gate. It is a small gate (about 90cm wide) and was artificially buried and closed at some early stage after the construction of the fort.

The quarter just on the right beyond the main gate includes a mosque. It consists of building blocks 15, 18 and 20 and is enclosed by the central street and streets 1, 4 and 5. Many residential spaces are concentrated in the three quarters on the left. The buildings inside the fort are generally two or more storied. It is supposed that the ground floor was used for the entrance, work space, storeroom, kitchen and stair hall, and the second and higher floors were used for living.

Various functions are supposed to have been concentrated along the central street. It widens to more than 10m in front of the mosque and the space resembles a square. We found a portico-like extension in front of the entrances of the buildings on the opposite side of the mosque, and a marble plinth and pillar at the entrance of rooms 3–10. Three tenement-style rooms of building block 12 in the back of the central street are long and narrow, which suggests that they may have been shops or storerooms.

Just under 20m from the main gate there are two-tier steps of coral blocks on the right. These lead to the front door of the mosque. At the top of the steps was a space enclosed by walls about 13.5m long on the north-east, north-west, and south-west, and about 12m on the south-east. Four pillars of about 1m<sup>2</sup> stand at almost equal intervals and partition the space into nine units. The three walls are built at right angles to one another, but the

*qibla* wall (in the direction of Mecca, south-east) is largely inclined in accordance with its bearing, giving the space a trapezoidal plan.

On the *qibla* wall was a *mihrab*, the upper part of which had collapsed inward. We succeeded in bringing it up in the form in which it lay buried. After cleaning it in the research facilities at al-Tur, we found that a rosette pattern was arranged in a row all the way round. White plaster was applied to the wall faces inside the mosque. Passages from the Koran and phrases of the Muslim confession were written in black pigment, though incomplete, and plant and other patterns were drawn in black and red. At present we are trying to join several thousand fragments of wall painting. A part of the *qibla* wall will be restored in the near future.

The oldest mosque in the Sinai Peninsula has always been thought to be the mosque in St. Catherine's Monastery, constructed, according to surviving inscriptions on its *kursi* (used for reciting) and *minbar* (pulpit), in the first half of the eleventh century or the first half of the twelfth century (the Fatimid period). But the mosque found at the Raya site in 1999 can be presumed to have existed in the ninth–tenth century. As a result, it has furnished a new view of the history of the mosque in the Sinai Peninsula, a sacred area for Judaism and Christianity, and offers significant material for studying the Islamisation of the Sinai Peninsula and the coexistence there of Christianity and Islam.

The Raya site is a well-preserved archaeological site that has barely been disturbed since it was abandoned around the twelfth century. Islamic ceramics of high quality, glassware, steatite objects, copperware, gold coins, papyrus manuscripts and other artefacts, mainly dating from the ninth to the tenth century, were excavated until the sixth expedition. Fragments of Yüeh celadon and of white porcelain have been found, although in small quantities, which show the existence of East–West maritime relations.

### Medieval settlement at al-Kilani, al-Tur

The al-Kilani site was located as an artefact scatter on the seashore at al-Tur (Figures 3 and 8) and excavated in 1986–1991. It lay in an area originally intended for residential redevelopment, but since our excavations it has been designated as a district for the preservation of cultural properties (Prime Minister's order, no. 1150, April 27, 1996).

The site consists of a distorted gourd-shaped mound, the length (east–west) about 400m, and width (south–north) about 200m. A branch of St. Catherine's Monastery stands on the east side of the mound, and the al-Kilani Mosque is situated by the sea coast. The west side of the mound was almost uninhabited, but buildings made of coral blocks were standing to the east of the mound. They had been built during and after the domination of the Ottoman Empire, and had later become a slum.

Three phases were identified at the al-Kilani excavations: the first group of layers, eighteenth–twentieth centuries AD; the second group of layers, sixteenth–eighteenth centuries AD; and the third group of layers, fourteenth–sixteenth centuries AD. The broad sequence has public buildings in the first group of layers giving way to groups of private houses in the first and the second groups of layers (Kawatoko 1995, 1996, 1998a). Numerous artefacts were unearthed, showing contacts and living conditions at the port from the fourteenth to the twentieth century (Shindo 1993, 1997, 2001). Both local artefacts and products brought from Middle Eastern areas were in abundance and demonstrated

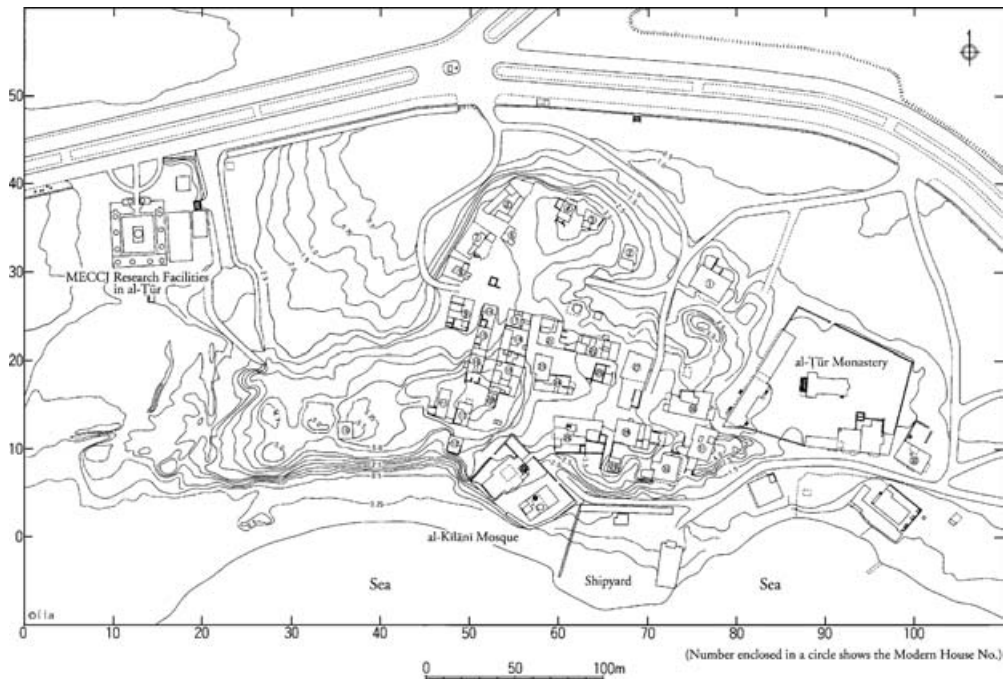


Figure 8. Plan of the al-Kilani site in al-Tur.

the existence of active East–West maritime relations. One important example is a gold coin of Sultan al-Zahir Jaqmaq (reigned 1438–1453) of the Mamluk period. Pilgrim’s flasks were recovered in great quantity. They were used by Muslim pilgrims to carry the water of ‘the fountain of Zamzam’ from Makkah (Mecca). Many incense burners, mostly uniquely shaped ones, were unearthed, mainly from the first and the second groups of layers. They are box-shaped, with horns on the four corners, and came from Oman and Yemen following the frankincense trade route, as a highly coveted commodity by the society at that time. There were also glass bracelets made in India, south-east Asian ceramics made in Thailand, Myanmar, and Vietnam, and Chinese celadon and blue-and-white ceramics made in Lung-ch’üan and Jing-de-zhen. There was a significant proportion of material from Syria and Palestine. These objects must have been brought in by boat and sold in the city, or were discarded merchandise that had broken in transit. Even objects for daily use, such as coarse pottery and glass, did not appear to originate in Egypt. There were many artefacts implying connections with Europe or the Ottoman Empire, as for example Iznik and Kütahya ceramics of Turkey, ceramics of deep blue on a white background from Faenza in north Italy, polychrome glazed sgraffito ceramics of Cyprus and lustre-painted ceramics of Andalusia.

### **Manuscripts from the al-Kilani site**

More than 4000 manuscripts, including small fragments, were found at the al-Kilani site in al-Tur (Kawatoko 1989, 1993a, 1994a, 2001b). They consist of private business documents, account books and memoranda. The dates of these excavated documents are concentrated

in three periods: the earliest group dates from the late 1400s to the late 1500s, the middle group from the middle of the 1800s to the early 1900s and the latest group from around 1967, the year of the Israeli occupation.

The period of the earliest documents was the al-Tur port's golden age as an international commercial port. They reflect the stream of spices from India and Southeast Asia to Suez, vividly depicting the movements of people. Al-Tur manuscript No. 186, a business document written in AH 965 (AD 1557/8), tells about a transaction of indigo.

The documents of the middle period are a group named 'Radi Family Documents'. They consist of more than 500 letters and account books portraying the extensive commercial activity of the two generations of the Radi family who had their bases in al-Tur and Suez. Those letters reveal in detail their business transactions as well as various problems in everyday life. Al-Tur manuscript No. 2265 is an account book of a ship owned by the family. The contents of the latest group include contemporary affairs, and need not be mentioned here.

Research at al-Fustat and south-west Sinai have clearly raised various problems, among which may be cited the supply of drinking water in the Islamic period, the transition point from Coptic-Byzantine to Islamic culture in the first half of the ninth century, the shift of ports from Raya to al-Tur (in the eleventh-twelfth century), the Islamisation of the Sinai Peninsula and co-existence with Christians, the relationship between the Bedouins and camel transportation and between the monastery and the port cities as well as the use of different routes by those of different religions. At the same time it is clear that, using a multi-disciplinary approach, including survey and excavation, the answers are coming within reach. For the future we hope to carry on archaeological survey and research, while planning to supplement the historic and anthropological studies and record the history of al-Fustat and the history of the Raya/al-Tur area more fully.

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